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Relationship Characteristics Associated with Teen Dating Violence Perpetration

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Abstract

Teen dating violence (TDV) is unstable across dating relationships, suggesting that characteristics of the relationship could be related to TDV. Few empirical studies have examined these links. This study examined associations between relationship characteristics and TDV perpetration among teens and sex differences in those associations. Relationship characteristics examined include tactics used to manipulate partners; ways of responding to relationship problems; relationship

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duration; exclusivity of the relationship; age difference between partners; and history of sexual intercourse with partner. Data were drawn from 667 teens in a current relationship (62.5% female and 81.4% white) enrolled in the 11th or 12th grade in 14 public schools in a rural US state. Bivariate and multivariable regression analyses examined proposed associations. 30.1% and 8.2% of teens reported controlling and physical TDV perpetration, respectively. In multivariable models, frequent use manipulation tactics increased risk for controlling or physical TDV perpetration. Teens dating a partner two or more years younger were at significantly increased risk for both controlling and physical perpetration. A significant interaction emerged between sex and exit/neglect accommodation for physical TDV. Characteristics of a current dating relationship play an important role in determining risk for controlling and physical TDV perpetration.

Keywords

physical dating violence perpetration; controlling dating violence perpetration; teen dating relationship characteristics

Teen dating violence (TDV) is a significant public health problem affecting a substantial proportion of youth. National studies estimate that roughly 1 in 10 high school students are victims of physical dating violence (Kann et al., 2016). Other studies with high-risk samples (e.g., living in areas with large amounts of crime) and with more sensitive measurement of TDV (e.g., asking multiple questions about multiple forms of TDV, asking only students who reported having dated) demonstrate much higher rates (Niolon et al., 2015). Several correlational and longitudinal studies have found that TDV victimization puts teens at risk for a myriad of physical and mental health problems, such as substance use, depression, unhealthy weight control, and suicidality (Exner-Cortens, Eckenrode, & Rothman, 2013; Foshee, Reyes, Goffredson, Chang, & Ennett, 2013; Silverman, Raj, Mucci, & Hathaway, 2001).

Characteristics of Dating Relationships and Dating Violence Behaviors

One area that has received scant research attention, yet may inform future TDV prevention efforts, is how characteristics of the dating relationship, rather than of the individuals involved, are associated with TDV perpetration. The use of TDV is not always consistent across relationships. For example, Whitaker, Lee, and Niolon (2010) found that among over 1,200 US teens and young adults who perpetrated physical partner violence in one relationship, only 30% reported perpetrating in a second relationship. Similarly, Capaldi and Kim (2007) found that reported violence within a given relationship was specific to that relationship and not often reported across all relationships. This instability in violence across relationships suggests that risk for perpetration does not reside exclusively with characteristics of the individual, but rather may reside in characteristics of the relationship itself. Therefore, examining relationship characteristics as risk factors may be important for understanding TDV risk. Given the limited research on relationship characteristics that are associated with TDV perpetration, we selected characteristics from several theoretical frameworks described below to examine a more comprehensive portrait of the dynamics within teen relationships.

Dating relationship factors that may be associated with TDV include interactional patterns that increase the likelihood of conflict and violence perpetration (Capaldi, Knoble, Shortt, & Kim, 2012). Buss's interactional person-environment framework suggests that manipulation (i.e., how individuals intentionally alter or exploit their environment) is a central process in social interaction that may be particularly relevant when considering risk for relationship violence. These manipulation tactics, such as *charm* (e.g., complimenting a partner so that they'll do what you want), *silent treatment* (e.g., ignoring a partner until they do what you want), *coercion* (e.g., demanding that a partner do something), *reason* (e.g., pointing out all of the good things that will come from a partner doing something you want them to do), *regression* (e.g., sulk until a partner does something you want), and *debasement* (e.g., looking sick so that a partner will do what you want them to do), describe ways individuals may attempt to manipulate their partners into doing something they want them to do. These tactics vary by frequency and use in a given relationship (Buss, 1992; Buss, Gomes, Higgins, & Lauterback, 1987), and although their usage may be associated with risk for TDV, no study has examined this association in teen dating relationships to date.

How individuals respond to problems in relationships may also be associated with TDV. Rusbult's investment model of commitment (Rusbult, 1980) suggests that relationship commitment influences how partners respond to problems. Individuals who are highly committed to the relationship are likely to use the constructive accommodative behaviors of *voice* and *loyalty* (Rusbult, 1980; Rusbult, Farrell, Rogers, & Mainous, 1988). *Voice* accommodation has been described as "actively and constructively trying to improve conditions through discussing problems with a [partner]..." (Rusbult et al., p. 601). *Loyalty* accommodation has been described as passively but optimistically waiting for conditions to improve (Rusbult et al., 1988). However, individuals who are not committed to the relationship are likely to use the destructive accommodative behaviors of *exit* and *neglect* (Rusbult et al., 1988). *Exit* accommodation has been described as "actively harming or terminating a relationship (Rusbult & Zembrodt, 1983, p. 275), and *neglect* accommodation has been described as "passively allowing conditions to deteriorate (Rusbult & Zembrodt, 1983, p. 275–276). Using violence against a partner may be more likely when commitment to the relationship is low, as indicated by the use of exit and neglect accommodation, than when commitment is high, as indicated by the use of voice and loyalty accommodation. There has been very little application of the investment model to teen relationships and no application to teen dating violence, yet these relationship factors may have important associations with TDV.

Research also suggests that TDV victimization is more likely in relationships where sexual intercourse is occurring (Kaestle & Halpern, 2005), and TDV perpetration is more likely in relationships of longer duration (Gaertner & Foshee, 1999). Whereas sexual intercourse is common among adult relationships and is often an indicator of more committed relationships, this may not be the case in teen relationships and the negotiation of sexual intimacy during adolescence may prompt conflict that could lead to violence (Kaestle & Halpern, 2005). Similarly, whereas longer duration may result in more investment and commitment among adult relationships, longer relationship duration among teens may provide more opportunities for conflict to arise (Giordano, Soto, Manning, & Longmore, 2010).

Goal of Current Study

The focus of this study is to examine the relationships among specific characteristics of the dating relationship and two types of TDV perpetration – controlling and physical. The specific relationship factors include relationship duration, sexual intimacy, dating other people (i.e., not exclusively dating one partner), the frequency of using various manipulation tactics and ways of responding to relationship problems. Based on the interactional person-environment framework, we hypothesized that TDV perpetration would be more likely among teens that frequently used exploitive manipulative tactics to get desired behavior from their partner (Buss, 1992; Buss et al., 1987). Consistent with the investment model of commitment (Rusbult, 1980; Rusbult et al., 1988), we hypothesized that TDV perpetration would be more likely when the relationship was not monogamous and when the teen frequently responded to relationship problems with exit and neglect accommodation, denoting lack of commitment to the relationship.

However, potentially counter to the investment model of commitment, but based on empirical research with teens (Gaertner & Foshee, 1999; Giordano et al., 2010; Kaestle & Halpern, 2005), we hypothesized that teens would be more likely to perpetrate TDV when they were in a relationship of longer duration and when they had engaged in sexual intercourse with that partner. Further, we draw from theoretical work and research on control and power in intimate relationships to hypothesize that teens would be more likely to perpetrate TDV when they were older than their partner, as the age difference could potentially create a power differential in which the older partner was perceived to hold more power (Roberts, Auinger, & Klein, 2006).

This study also examined sex differences in these associations given the research demonstrating significant sex differences in the prevalence of TDV. Vagi, Olsen, Basile, and Vivolo-Kantor (2015) found that 1 in 5 females and 1 in 10 males experienced physical and/or sexual TDV in the past 12 months. Additionally, many studies have found different individual-level risk factors for TDV among boys and girls (Foshee, Linder, MacDougall, & Bangdiwala, 2001; Niolon et al, 2015), suggesting the importance of examining whether sex differences exist in the ways relationship characteristics are associated with perpetration of TDV perpetration. However, given the dearth of empirical research on relationship characteristics as correlates of TDV, the examination of sex differences in this study is exploratory rather than confirmatory, and specific hypotheses regarding sex differences were not tested. In sum, this study tests several hypotheses regarding how relationship characteristics are associated with perpetration of TDV among a sample of adolescents and examines whether these associations are moderated by sex.

Method

Study Design and Procedure

Data are drawn from a randomized controlled trial of a teen dating violence prevention program (Foshee et al., 1998). After baseline data collection in the fall of the 8th and 9th grades, 14 public schools in a primarily rural county in North Carolina were stratified by grade and matched on school size. One school in each pair was randomly assigned to

treatment or control condition. Participating teens were asked to complete follow-up surveys at one month, one year, two years, three years, and four years post-intervention. Most data were collected in schools via self-administered questionnaires; those who had dropped out of school or who were absent on multiple school data collection attempts were mailed a questionnaire to complete. Additional details of the larger study design are included in Foshee and colleagues (1998). Active parental consent and teen assent were obtained from all participants. All study procedures were approved by the University of North Carolina at Chapel Hill Institutional Review Board.

Analytic sample

The current study used data from the three years post intervention survey, which included teens in the 11th and 12th grades because this wave of data collection included a comprehensive set of questions about the teen's current dating relationship. We limited the sample to those who reported being in a current dating relationship, which was 60% ($n = 667$) of the 1,117 11th and 12th graders in the study. The analytic sample is 62.5% female and 51% 12th graders. A majority were White (81.4%) and the remaining students were 15.9% Black, 0.9% American Indian, 0.9% Hispanic, 0.6% Other race, and 0.3% Asian. No significant grade or race differences were found between the full sample and current daters, but the sex composition of the current dating sample (62.5% female) differed significantly from the composition of the non-dating sample (47% female), $\chi^2(1, 877) = 23.52, p < .001$.

Measures

Dating violence perpetration—Participants were asked to report on TDV perpetrated against a current dating partner (referred to as Partner X in the questionnaire). *Controlling TDV* perpetration was assessed by asking the teen how often they did the following: "I told Partner X he/she could not talk to someone of the opposite sex," "I would not let Partner X do things with other people," and "I made Partner X describe where he/she was every minute of the day." These three items had possible response options of never, seldom, sometimes, and very often. Responses were summed across all three items and dichotomized to "never" (0) and "seldom or more" (1). *Physical TDV perpetration* was assessed by asking, "How many times have you ever used any kind of physical force against Partner X (such as hitting, shoving, kicking, scratching, biting, assaulting them with a weapon) that was NOT used in self-defense?" Response options were never, 1 to 3 times, 4 to 9 times, and 10 or more times. Due to skewness and low base rates, the variable was dichotomized to include "never" (0) or "one or more times" (1).

Relationship characteristics—*Manipulation tactics* were measured using a modified version of the Manipulation Tactics Scale (MTS; Buss et al., 1987) that contained 14 items each with the stem, "When you want to get Partner X to do something for you, what are you likely to do?" The 4-point response options ranged from extremely likely to not at all likely. Sample items included, "I pout until he/she does it" and "I ignore Partner X until he/she does it." In previous administrations of the full 35-item survey with adult samples, factor analysis demonstrated six latent factors: charm, silent treatment, coercion, reason, regression, and debasement (Buss, 1992; Buss et al., 1987). Because of the short time allowed for data collection in schools, the scale was reduced to 14 items in the current study

by selecting items that had been found in prior research to load the highest on each of the sub-scales except for debasement; items measuring debasement were deemed inappropriate for teen relationships and therefore were not included on the survey. Since the MTS has never been used with teens and because a reduced number of items were used, we conducted exploratory factor analyses to determine if the same six sub-scales emerged and to inform creation of the manipulation tactics variables.

The results of the factor analyses are in Table 1. Factors were extracted using maximum likelihood and promax oblique rotation because we assumed correlation among the factors. The number of factors retained was based on the Kaiser-Guttman “eigenvalues greater than one” rule (Fabringer, Wegener, MacCallum, & Strahan, 1999; Horn, 1965; Zwick & Velicer, 1986). A three-factor solution emerged that accounted for 64% of the total variance. The first factor contained three items that assessed the coercion tactic. The second factor contained five items that encompassed two tactic types: silent treatment and regression. Buss and colleagues (1987) suggested that silent treatment, regression and coercion are typically used to get the partner to stop unwanted behaviors. The final factor contained six items that encompassed two tactic types: reason and charm. Buss and colleagues (1987) noted that these tactics are typically used to get a partner to perform a desired behavior. Three variables were created by summing the items that loaded onto the three factors.

A modified version of the Response to Partner Behavior Scale (RPBS; Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991) with nine items was used to capture *responses to relationship problems*. The original scale included 28 items with four sub-scales: exit, voice, loyalty, and neglect (Rusbult, Johnson, & Morrow, 1986; Rusbult et al., 1991). The full 28 item scale was reduced to nine in the current study for the reason noted above and through the same process of selecting items from prior research that loaded the highest on each of the four sub-scales. A sample item included in this study was, “When Partner X is upset and says something mean, I feel so angry that I want to walk right out the door.” The response options included “I never do this,” “I seldom do this,” “I sometimes do this,” “I frequently do this,” and “I always do this.” The results from the factor analysis are in Table 2. A two-factor solution emerged that accounted for 59% of the total variance; factors were consistent with the investment model of commitment. The first factor consisted of the six items tapping “voice” and “loyalty”, which are subscales assessing constructive responses to partner behavior.” The second factor included three items tapping into destructive responses to relationship problems; this factor was called “exit and neglect.” Two responses to relationship problem variables were created by summing the items that loaded onto the two factors.

Relationship duration was captured by a single item with categories for length in months. *Dating other people* (i.e., not exclusively dating one partner) was captured with one item, “Are you dating anyone else besides Partner X?” with response options yes (1) or no (0). An *age difference* variable was created to categorize if the respondent’s partner was the same age or within one year (0), 2 or more years older (1), or more than two years younger (2). Three dummy variables were created and the referent was same age or within one year of the partner. *History of sexual intercourse with Partner X* was assessed with a single item, “Have you ever had sexual intercourse with Partner X?” and response options of yes (1) or no (0).

Analyses

First, univariate descriptive analyses were conducted on each relationship characteristic variable and each TDV variable in the total sample and stratified by sex of the teen, followed by analyses examining bivariate Spearman rho correlations between each relationship and TDV variable, stratified by sex of the teen. Finally, multivariable logistic regression analyses were conducted with controlling TDV and physical TDV perpetration as outcomes. Separate logistic regression models were computed for controlling and physical TDV perpetration outcomes to obtain adjusted odds ratios (AORs) and 95% confidence intervals (CI) around parameter estimates. Each model controlled for grade level, race, sex, treatment condition,¹ and whether the respondent was a victim or not of the type TDV outcome. Victimization has been found to relate to both the relationship characteristics and TDV perpetration, and controlling for victimization avoids potential confounding with proposed relationships. In each model, control and independent variables were entered followed by all interactions² between the relationship variables and sex. Using backward elimination, all non-significant interaction terms were removed from the final models in order to achieve model parsimony. Because we found that across all variables missing data ranged from 0 to 1.3%, cases with missing data were listwise deleted from analysis. All analyses, including the factor analyses, were run in SPSS Statistics 21 (SPSS Inc., Chicago, IL).

Results

Descriptive Analyses and Bivariate Relationships

Table 3 presents distributions of the relationship and TDV variables for all students and by sex. Several significant differences emerged by sex. Males ($M=14.9$) had higher mean scores than females ($M=13.2$) on the loyalty/voice accommodation, and females ($M=3.8$) had higher mean scores than males ($M=3.2$) on the exit/neglect accommodation. Females, compared to males, also reported significant differences in relationship duration: 9.3 versus of 8.1 months. Males were more likely than females to have a same-age dating partner and more likely to date younger partners, whereas females were more likely than males to date older partners.

The prevalence of each type of TDV is also presented in Table 3. In the total sample 30.1% ($n = 200$) reported using controlling TDV and 8.1% ($n = 54$) reported using physical TDV against their current dating partner. Significant differences emerged in dating violence. More males than females were perpetrators of controlling TDV (males 37.1%; females 26%). No sex differences were found for physical TDV perpetration.

Table 4 provides the bivariate correlations between the relationship characteristics and the TDV variables stratified by sex. For females, all TDV perpetration types were significantly correlated with each other (ρ range=.11 to .31). The frequency of using the exit/neglect accommodation was significantly positively correlated with all three types of TDV (ρ range=.10 to .16). The frequencies of using coercive tactics (ρ range=.21 to .23), silent

¹Sensitivity analyses were conducted by running the analyses only on the control sample. Because the findings were consistent with the combined control and intervention sample, we used the full sample in all analyses for greater power.

²Sex-stratified models were also tested, however results led to consistent findings.

treatment/regression tactics (ρ range=.20 to .29), and reason/ charm tactics (ρ range=.11 to .21) were each positively associated with controlling and physical TDV. The duration of the relationship was significantly positively correlated with both controlling TDV (ρ =.21) and physical TDV (ρ =.13). Finally, sexual intercourse with the partner was positively correlated with both controlling TDV (ρ =.24) and physical TDV (ρ =.21).

For males, all TDV perpetration types were significantly correlated (ρ range=.24 to .46) with each other. The frequency of using coercive tactics (ρ range=.23 to .31), silent treatment/regression tactics (ρ range=.16 to .31), and the frequency of using exit/neglect accommodation (ρ range=.18 to .31) were each significantly positively correlated with all three types of TDV. The frequency of using loyalty/voice accommodation was significantly and negatively correlated with physical TDV (ρ =-.13). The frequency of using reason/ charm tactics was significantly and positively associated with physical TDV perpetration (ρ =.20). Sexual intercourse with the partner was positively correlated with both controlling TDV (ρ =.24) and physical TDV (ρ =.16). The duration of the relationship was significantly positively correlated with controlling TDV (ρ =.19).

Multiple Logistic Regression Models

Table 5 presents the results from the final multivariable logistic regression models for controlling and physical TDV perpetration. Each of these models include all of the relationship variables, treatment condition, grade, race, the corresponding type of victimization (controlling or physical) as the perpetration outcome, sex and any interactions between the relationship variables and sex that were significant through the model reduction technique described earlier.

Controlling perpetration—None of the interactions between the relationship variables and sex were significant in the controlling TDV perpetration model. However, there were several significant main effects. Adjusting for the covariates, as the frequency of silent treatment/regression and reason/charm tactics increased, the adjusted odds of controlling perpetration increased 20% (AOR=1.20, 95% CI: 1.06–1.34) and 7% (AOR=1.07, 95% CI: 1.01, 1.14), respectively. Also, having a partner that was two or more years younger increased the odds of controlling perpetration (AOR=2.54, 95% CI: 1.03–6.30).

Physical perpetration—One significant interaction remained in the model following model trimming. As seen in Figure 1, there was no relationship between exit/neglect response to partner behavior for males, however, there was a significant association for females such that as the frequency of exit/neglect increases, the odds of physical TDV perpetration increase (AOR=1.47, 95% CI: 1.06–2.03). Additionally, several significant main effects were also found. Adjusting for the covariates, as the frequency of coercion tactics increased, the odds of physical TDV perpetration increased 50% (AOR=1.50, 95% CI: 1.14, 1.98). Similar to the controlling TDV perpetration model, having a partner that is two or more years younger increased odds of physical perpetration (AOR=6.58, 95% CI: 1.57–27.64).

Discussion

The purpose of this study was to examine associations among characteristics of the dating relationship and the perpetration of controlling and physical dating violence in a sample of teens in a current dating relationship. Although not all hypotheses were supported, important associations were found between relationship characteristics and risk for TDV perpetration that can inform future TDV research and practice.

Our hypothesis that controlling and physical TDV perpetration would be more likely among teens that frequently used exploitive manipulation tactics was partially supported. In bivariate analyses, for males and females the frequencies of using coercive manipulation tactics were associated with greater physical perpetration, and the frequency of using silent treatment/regression manipulation tactics was associated with greater controlling TDV perpetration. The frequency of using reason/charm tactics was also positively significantly related to controlling and physical TDV by females, but only for physical TDV perpetration by males. In multivariable models that controlled for other aspects of the relationship, the frequency of using silent treatment/regression tactics and of using reason/charm tactics were significantly positively associated with controlling TDV perpetration and the frequency of using coercion tactics was significantly positively associated with physical TDV perpetration. These results make sense, given that the more psychological forms of manipulation (i.e., silent treatment/regression and reason/charm tactics) were associated with controlling perpetration and the more overt tactic (i.e., coercion) was related to physical perpetration. That said, the items included in the reason/charm tactic appear to capture constructive relationship behaviors (e.g., “I explain why to partner X;” “I try to be loving to partner X;” “I compliment partner X”). Because reason/charm was significantly and positively associated with controlling perpetration, it is likely that among teens these items capture manipulative use of these behaviors that function to control the partner’s behavior. Future research can explore the use of these relationship dynamics and determine the motivating factors for teen use of charm and reasoning tactics.

Based on the investment model of commitment (Rusbult, 1980; Rusbult et al., 1988), we hypothesized that controlling and physical TDV perpetration would be more likely when the relationship was not monogamous and when the teen frequently responded to their partner’s unpleasant behaviors with exit and neglect accommodation. Counter to what was hypothesized, dating other people was not associated with controlling or physical TDV perpetration in either bivariate or multivariable analyses. Null findings could be due to low distribution on the variable; approximately 92% of the teens reported they were in monogamous relationships. We also found little support for the expectation that the frequency of exit/neglect accommodation would increase TDV perpetration risk. As expected, the frequency of using exit/neglect accommodation was significantly positively associated with both types of TDV perpetration for both males and females in bivariate analyses. However, in multivariable models, the frequency of using exit/neglect accommodation was no longer associated with perpetration of controlling TDV, and it was associated with physical TDV perpetration for females but not for males.

Several of the exit/neglect accommodation items resemble the silent treatment/regression manipulation tactic; in fact, these two constructs were significantly correlated for males and females. The silent treatment/ regression tactic was also correlated with both types of TDV for males and females. Thus, the attenuation of the associations between exit/loyalty and the TDV outcomes in the multivariable analyses may have been due to the inclusion of the silent treatment/regression manipulation tactic in the models. That exit/loyalty continued to be associated with physical TDV perpetration for females in the multivariable models may be because of the lower correlation between exit/loyalty accommodation and the silent treatment/regression tactic for females than males. Or perhaps exit/neglect accommodation was a better indicator of low commitment for females than males. The significant interaction between sex and exit/neglect in the physical TDV models is realistic given the literature on teen emotional reactivity to conflict in relationships. For example, Cook, Buehler, and Blair (2013) found that females who reported more interpersonal conflict in relationships were more likely to report emotional reactivity than males. So it may be that females are more likely to engage in actions in response to partner behavior that elicit a stress response that then triggers a physical response.

Additionally, based on prior research with teens, we hypothesized that teens would be more likely to perpetrate TDV when they were in relationships of longer duration and when they had engaged in sexual intercourse with the partner (Giordano et al., 2010). Consistent with expectations, having had sexual intercourse was significantly correlated in *bivariate* analyses with both controlling and physical TDV perpetration for both males and females. The duration of the relationship was positively associated with both types of TDV perpetration by females in bivariate analyses and with perpetration of controlling TDV by males. However, in multivariable models, sexual intercourse was no longer associated with either type of TDV perpetration, and neither was duration of the relationship. Even though these factors were not significant in multivariable models, significant bivariate associations suggest that relationship duration and engaging in sexual intercourse were accounted for by the factors that assessed relationship style and communication, such as coercion, silent treatment/regression, reason/charm, and exit/neglect.

The lack of significant findings in multivariable models for both relationship duration and sexual intercourse are counter to previous studies. Kaestle and Halpern (2005) found that multiple forms of dating violence victimization were more likely in relationships that included sexual intercourse than those where the partners had not engaged in sex. However, in their analyses, only demographic variables and relationship duration was controlled for, thus the results may differ from our current analyses that controlled for other aspects of the relationship. Also, Kaestle and Halpern's (2005) study assessed victimization as an outcome, whereas the current study focused on perpetration. Similarly, multiple studies have noted that violence occurs more often in relationships of longer duration, however most of these studies use samples of young adults (Luthra & Gidycz, 2006; Magdol, Moffitt, Caspi, & Silva, 1998). Nevertheless, Gaertner and Foshee (1999) found that study participants were more likely to perpetrate violence against a partner as the length of the relationship increased.

Finally, we draw from theoretical work and research on control and power in intimate relationships to hypothesize that teens would be more likely to perpetrate TDV when they were older than the partner who potentially had less power (Roberts et al., 2006). While there is limited research examining how partner age differences impact TDV, studies with adult samples indicate mixed findings; some studies finding null effects with both adult and adolescent samples (Volpe, Hardie, Cerulli, Sommers, & Morrison-Beedy, 2013; Whitaker et al., 2010), and others finding significant effects of age differences (Roberts et al., 2006). Our findings indicate that teens dating a partner two or more years younger were more likely to use both controlling and physical perpetration. The findings related to age difference in our sample suggest teens in relationships with significant age differences may be less adept at negotiating intimate relationships, and as a result are more likely to resort to violence and controlling behavior as relationship strategies. Most of the previous studies examined victimization, rather than perpetration, which may explain the distinction between our findings and previous ones. Further research can further examine the associations between age differences and dating violence victimization and perpetration, to shed light on the role of age differences as a risk factor for TDV.

Limitations

The study had several limitations. First, the data were assessed at one-time point for both the relationship characteristics and TDV; this did not allow us to determine the temporal aspects of the association between relationship characteristics and TDV perpetration. Second, the study was conducted in a primarily rural county and data were collected from this sample in 1998, limiting the ability to generalize the findings to teens from more urban areas and to current adolescents. Although the data are over 10 years old the data set was uniquely suited to examining the proposed associations – for example, having a large number of dating adolescents (to have power to detect interactions) and assessments of relationship characteristics and dating violence. However, all forms of dating violence were not assessed (i.e., cyber-abuse), and though sexual dating violence was measured less than 10 students reported any perpetration. Third, while the dating violence measure specifically asked respondents to not report on TDV perpetrated in self-defense, we lack additional contextual information on these behavioral acts that may shed light on the motives for perpetration. Fourth, data were from teen self-report surveys and may be prone to social desirability bias. Fifth, we only have one partner's self-reported behaviors and actions, so it is not possible to validate the individuals' reports of the relationship characteristics and presence of violence in the relationship.

Conclusion

The study makes a number of important contributions over prior studies. This study is the first to include consideration of manipulation tactics and accommodation constructs in the study of TDV. These constructs played a role in increasing risk for TDV perpetration and may have explained associations between more commonly examined relationship variables and TDV. The scales for assessing manipulation tactics and the accommodation constructs have been used primarily in studies of adults. Thus, a contribution of this study was to assess the factor structure of the two scales in a teen sample. While fewer factors were extracted

from each scale in this teen sample than have been extracted in adult samples, the items within the factors match the original scales conceptually. Because teens are less experienced at dating relationships, there is a chance that they are not yet able to make some of the nuanced distinctions in their relationship behaviors that adults can (i.e., giving the silent treatment compared to “sulking”). Additionally, the study was with a large sample of teens in a current relationship, and survey questions tapped into characteristics of that specific relationship.

The findings in this study provide some opportunities to inform prevention efforts. We found that potentially maladaptive communication styles that make use of manipulation tactics emerge in teen dating relationships and are associated with TDV. Increases in the *frequency* of using various manipulation tactics, even the seemingly positive ones such as reasoning, were associated with TDV perpetration. This finding suggests that teens who control or manipulate their partner’s behavior are also more likely to perpetrate TDV. Thus, prevention efforts that educate teens about appropriate expectations of partners can contribute to developing healthy relationship negotiation skills. In addition, the results highlight the importance of understanding TDV within the context of broader relationship patterns and dynamics, and the role that coercion tactics, silent treatment and regression tactics, and reason and charm tactics play in creating relationship contexts that facilitate or trigger TDV. As is the case with adults, it is likely that TDV can occur in the escalation of conflict (Straus & Gelles, 1988), and that conflict may arise as a result of poor communication and relationship skills (Dobash & Dobash, 1984). Additionally, relationship characteristics can serve as markers for more serious relationship problems. For example, while not specifically assessed in this study, teens who use manipulative and coercive relationship tactics may be at risk for engaging in more serious TDV within that relationship. Prevention programs can emphasize the importance of teaching healthy relationship and communication skills to teens as they begin to explore dating relationships, so they have an opportunity to integrate those skills. This study contributes to our thinking regarding prevention strategies in that the results emphasize the importance of targeting relationship characteristics and behaviors, rather than merely individual risk factors, in the prevention of TDV.

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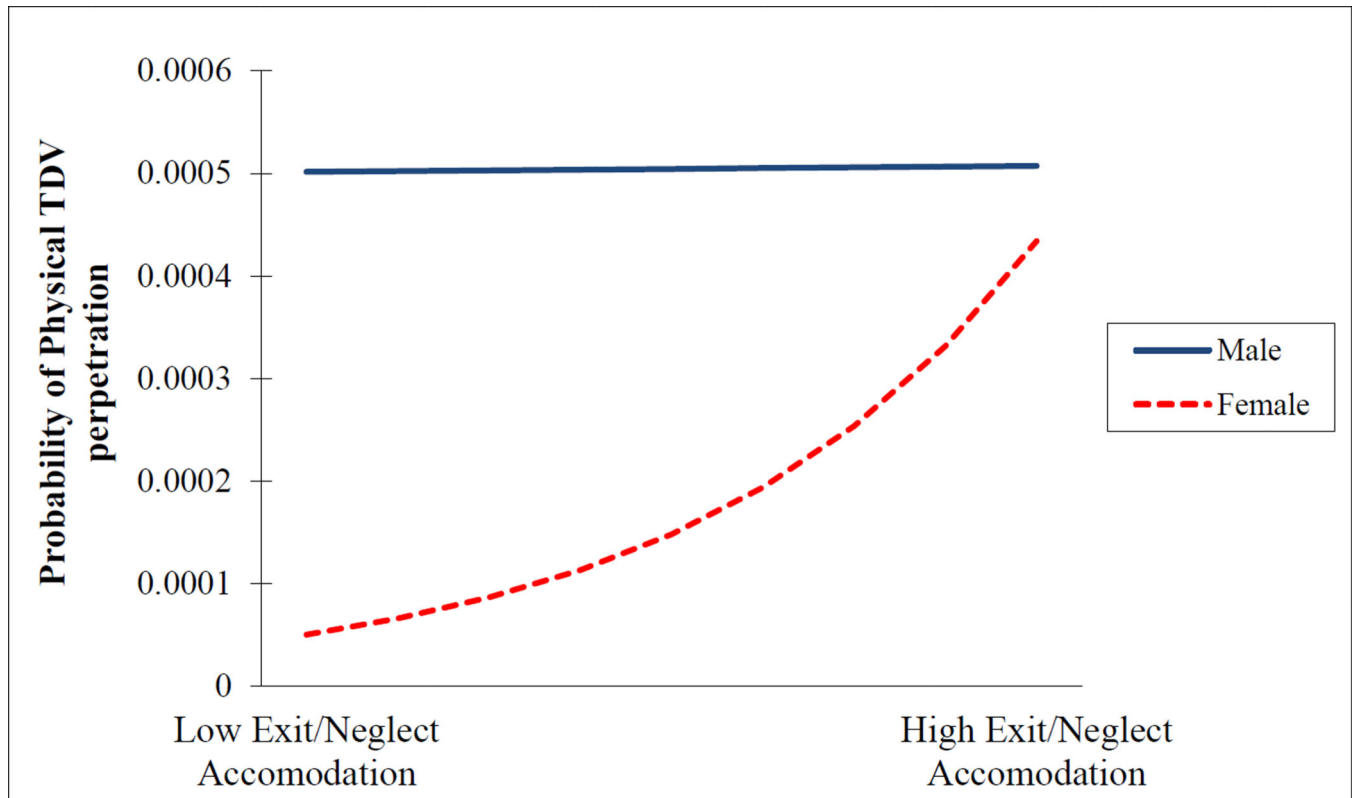


Figure 1.
Interaction of sex and exit/neglect accommodation responses to partner behavior on physical TDV perpetration final model

Table 1

Summary of Exploratory Factor Analysis Results for Manipulation Tactics Scale Using Maximum Likelihood Estimation (N = 663)

Item	Factor Loadings		
	Coercion	Silent Treatment/Regression	Reason/Charm
I yell at partner X	.902	.051	-.050
I curse at partner X	.807	-.006	-.068
I demand partner X	.478	.193	.150
I ignore partner X until does it	-.027	.911	-.098
I am silent to partner X	.023	.813	-.055
I do not respond to partner X	.048	.666	.030
I sulk until partner X does it	.016	.709	.048
I pout until partner X	.015	.504	.230
I point out good things to partner X	.009	-.059	.841
I give partner X reasons	.111	-.069	.788
I explain why to partner X	-.079	-.049	.753
I act charming to partner X	-.083	.154	.592
I try to be loving to partner X	-.095	.047	.531
I compliment partner X	.087	.042	.488
Cum. % of variance	54.39	49.54	32.96
Internal reliability (Cronbach's α)	.810	.849	.834

Note: Factor loadings over .40 appear in bold.

Table 2

Summary of Exploratory Factor Analysis Results for Response to Partner Behavior Scale (RPBS) Using Maximum Likelihood Estimation (N = 667)

Item	Factor Loadings	
	Voice and Loyalty	Exit and Neglect
When Partner X is rude or inconsiderate, I try to resolve the situation and improve conditions	.807	-.005
When Partner X is upset and says something mean, I try to patch things up and solve the problem	.682	.016
When Partner X is rude and inconsiderate, I remain loyal and wait for things to get better	.738	.050
When Partner X behaves in an unpleasant or thoughtless manner, I calmly discuss things with him/her	.632	-.088
When Partner X behaves in an unpleasant or thoughtless manner, I forgive him/her and forget about it	.682	.031
When Partner X is upset and says something mean, I give my partner the benefit of the doubt and forget about it	.585	.025
When Partner X is upset and says something mean, I feel so angry that I want to walk right out the door	-.003	.809
When Partner X is rude or inconsiderate, I begin to think about Ending our relationship	-.121	.691
When Partner X is upset and says something mean, I sulk and try to stay away from him/her for a while	.169	.512
Cum. % of variance	32.40	47.93
Internal reliability (Cronbach's α)	.841	.700

Note: Factor loadings over .40 appear in bold.

Table 3Descriptive statistics on relationship and TDV variables in the total sample and stratified by sex (N=667)^a

Variables	Sex		<i>t</i>	χ^2	Total
	Male (n=250)	Female (n=416)			
Coercion Tactic ^b	3.7/1.5	3.6/1.2	-1.02	--	3.6/1.3
Silent Treatment/Regression Tactic ^b	6.5/2.6	6.7/2.2	.53	--	6.6/2.6
Reason/Charm Tactic ^b	14.5/4.5	15.2/4.4	1.88	--	14.9/4.5
Loyalty/Voice Accommodation ^b	14.9/5.2	13.2/5.6	-4.01***	--	13.8/5.5
Exit/Neglect Accommodation ^b	3.2/2.6	3.8/2.8	2.54*	--	3.6/2.8
Relationship duration (in months) ^b	8.1/4.7	9.3/5.1	3.06**	--	8.8/4.9
Dating other people	22(8.8)	30(7.3)	--	.53	52(7.8)
Partner is similar age	187(75.7)	244(58.8)	--	19.49***	431(65.1)
Partner is 2 or more years younger	49(19.8)	8(1.9)	--	63.12***	57(8.6)
Partner is 2 or more years older	11(4.4)	163(39.3)	--	96.91***	174(26.3)
Sexual intercourse with partner	133(54.1)	229(55.7)	--	.17	362(55)
Outcomes					
Perpetrated Controlling TDV	92(37.1)	108(26)	--	9.15**	200(30.1)
Perpetrated Physical TDV	20(8.1)	34(8.2)	--	.00	54(8.1)

Note: Some items contained missing values.

^aOne participant was missing on sex.^bMeans and standard deviations presentation.* $p < .05$;

**

 $p < .01$;

 $p < .001$

Table 4

Spearman correlations among relationship factors stratified by sex (N=666)

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Controlling TDV perp.	--	.31***	.21***	.29***	.21***	-.03	.16***	.21***	-.04	-.01	-.00	.01	.24***
2. Physical TDV perp.	.26***	--	.23***	.20***	.11*	-.07	.13**	.13**	.06	.00	.02	-.01	.21***
3. Coercion Tactic	.30***	.31***	--	.53***	.24***	-.03	.16***	-.01	-.00	-.08	-.01	.08	.11*
4. Silent Treatment/Regression Tactic	.31***	.22***	.62***	--	.35***	.03	.23***	-.01	.02	-.05	-.03	.06	.16***
5. Reason/Charm Tactic	.08	.20**	.32***	.42***	--	.16***	.14**	.02	.01	-.07	-.06	.08	.19***
6. Loyalty/Voice Accommodation	-.07	-.13*	-.16*	-.14*	.16**	--	.01	.06	.02	.02	.02	-.02	.10*
7. Exit/Neglect Accommodation	.31***	.25***	.28***	.35***	.12	-.17**	--	-.06	.13**	.02	-.05	.00	.08
8. Relationship duration	.19**	.07	.05	-.04	-.06	-.01	-.07	--	-.19***	-.05	-.11*	.08	.42***
9. Dating other people	.08	.12	.18**	.18**	.13*	-.17**	.20**	-.12	--	-.03	-.04	.05	-.09
10. Partner is similar age ^a	-.08	-.07	.03	.00	.05	-.01	-.03	.05	-.10	<i>a</i>	<i>a</i>	<i>a</i>	-.07
11. Partner is 2 or more years younger	.02	.04	-.07	-.05	-.09	.02	-.05	-.13*	-.01	<i>a</i>	<i>a</i>	<i>a</i>	-.11*
12. Partner is 2 or more years older	.12	.08	.09	.10	.06	-.01	.15*	.14*	.22***	<i>a</i>	<i>a</i>	<i>a</i>	.10*
13. Sexual intercourse with partner	.24***	.16*	.11	.09	.09	-.07	.19**	.28***	.12	-.03	-.04	.12	--

Note: Male correlations are below the diagonal (N=250); female correlations are above the diagonal (N=416).

^aCorrelations between the three dummy variables for age difference (partner is similar age, partner is 2 or more years younger, and partner is 2 or more years older) were not computed.

* $p < .05$;

** $p < .01$;

*** $p < .001$

Table 5

Final models for controlling and physical TDV perpetration and relationship characteristics

	Controlling TDV Perpetration (N=646)	Physical TDV Perpetration (N=645)
	AOR (95% CI)	AOR (95% CI)
Control		
Grade	.69 (.42, 1.14)	1.59 (.68, 3.72)
Minority ^a	1.50 (.81, 2.78)	1.56 (.62, 3.93)
Controlling TDV victimization	33.12 (18.67, 58.75) **	----
Physical TDV perpetration	----	46.70 (18.38, 118.67) **
Moderator		
Sex ^b	1.56 (.89, 2.74)	.07 (.01, .53) **
Independent variables		
Manipulation Tactics		
Coercion	1.21 (.97, 1.52)	1.50 (1.14, 1.98) **
Silent Treatment/Regression	1.20 (1.06, 1.34) **	1.0 (.85, 1.18)
Reason/Charm	1.07 (1.01, 1.14) *	1.11 (.99, 1.25)
Responses to Partner Behavior		
Loyalty/Voice	.99 (.94, 1.04)	.95 (.87, 1.03)
Exit/Neglect	.95 (.87, 1.05)	1.00 (.84, 1.19)
Relationship duration	1.06 (.99, 1.12)	1.09 (.99, 1.20)
Dating other people	.56 (.22, 1.43)	1.14 (.31, 4.26)
Partner is 2 or more years younger ^c	2.54 (1.03, 6.30) *	6.58 (1.57, 27.64) **
Partner is 2 or more years older ^c	.73 (.40, 1.33)	.54 (.19, 1.50)
Sexual intercourse with partner	1.35 (.79, 2.32)	1.90 (.67, 5.38)
Sex by Exit/Neglect	----	1.47 (1.06, 2.03) *
Model Nagelkerke R ²	.589	.64

Note: Significant relationships at $p < .05$ are shown in **boldface**.

^aReference group is White.

^bReference group is female.

^cReference group is partner of similar age.

* $p < .05$;

** $p < .01$